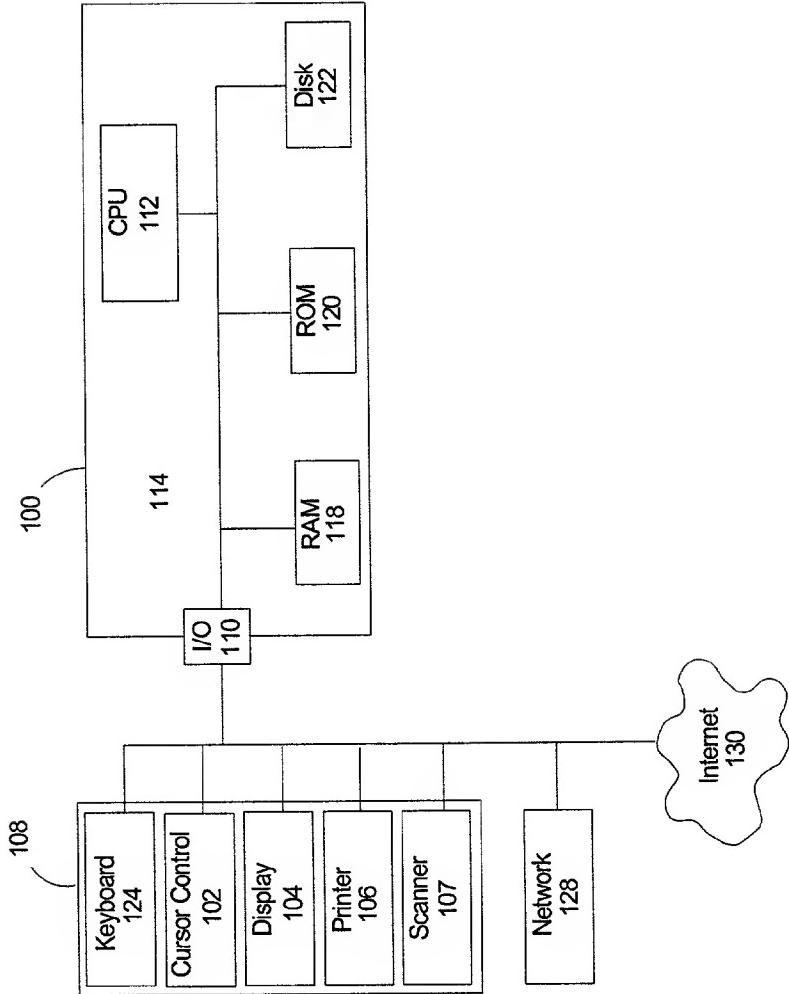


Figure 1



APPN. FILING DATE: NOVEMBER 30, 2001 SHEET 1 OF 8 APPLICATION SERIAL NO: UNASSIGNED

INVENTOR(S): ALI SAZEGARI ET AL.

TITLE: SINGLE-CHANNEL CONVOLUTED VECTOR PROCESSING COMPUTER SYSTEM

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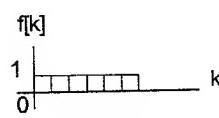


Figure 2A

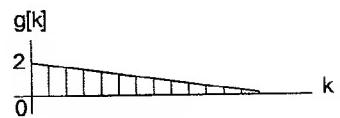


Figure 2B

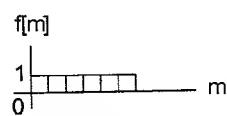


Figure 2C

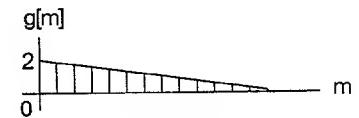


Figure 2D

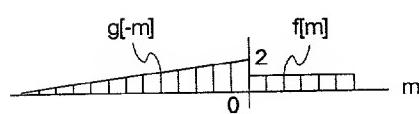


Figure 2E

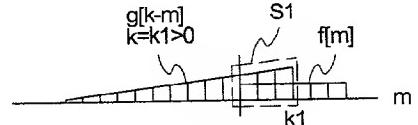


Figure 2F

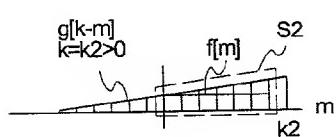


Figure 2G

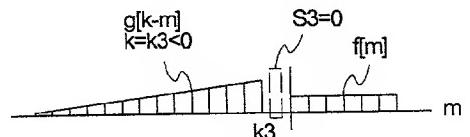


Figure 2H

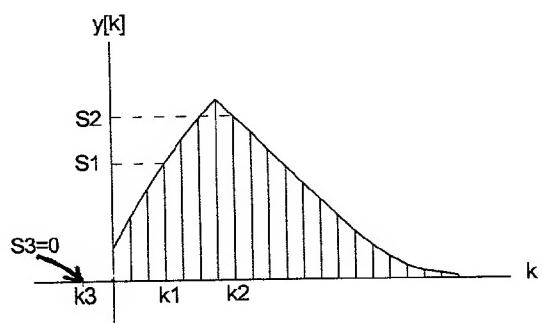


Figure 2I

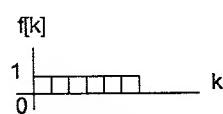


Figure 3A

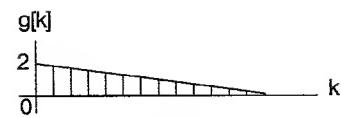


Figure 3B

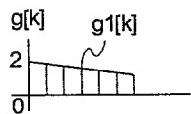


Figure 3C

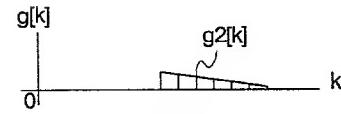


Figure 3D

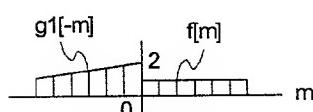


Figure 3E

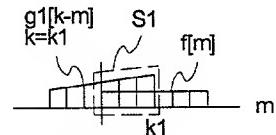


Figure 3F

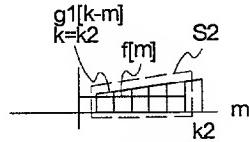


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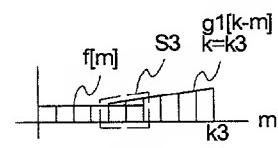


Figure 3H

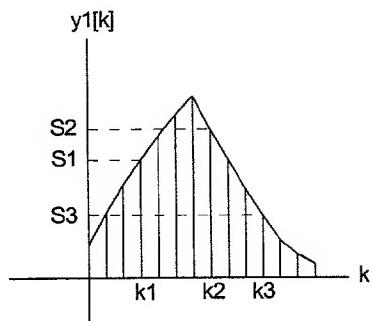


Figure 3I

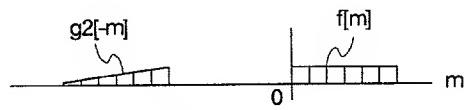


Figure 3J

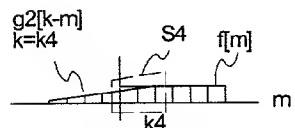


Figure 3K

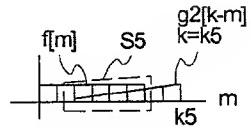


Figure 3L

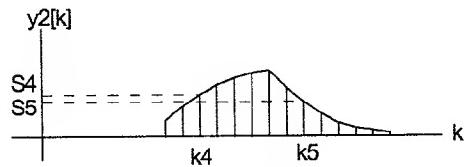


Figure 3M

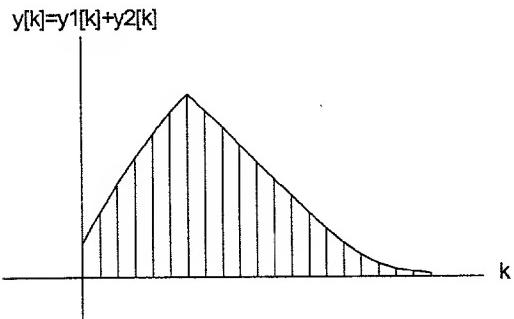


Figure 3N

| | | | | | | | | |
|--------|-----|--|---|---|---|---|---|---|
| $y[0]$ | $=$ | $g[0]$ | | | | | | |
| $y[1]$ | $=$ | $g[0] + g[1]$ | | | | | | |
| $y[2]$ | $=$ | $g[0] + g[1] + g[2]$ | | | | | | |
| $y[3]$ | $=$ | $g[0] + g[1] + g[2] + g[3]$ | | | | | | |
| $y[4]$ | $=$ | $g[0] + g[1] + g[2] + g[3] + g[4]$ | | | | | | |
| $y[5]$ | $=$ | $g[0] + g[1] + g[2] + g[3] + g[4] + g[5]$ | | | | | | |
| $y[6]$ | $=$ | $g[0] + g[1] + g[2] + g[3] + g[4] + g[5] + g[6]$ | | | | | | |
| $y[7]$ | $=$ | $g[1] + g[2] + g[3] + g[4] + g[5] + g[6] + g[7]$ | | | | | | |
| $y[8]$ | $=$ | $g[2] + g[3] + g[4] + g[5] + g[6] + g[7] + g[8]$ | | | | | | |
| $y[9]$ | $=$ | $g[3] + g[4] + g[5] + g[6] + g[7] + g[8] + g[9]$ | | | | | | |
| . | . | . | . | . | . | . | . | . |

Figure 5

y[N-1] = g[N-7] + g[N-6] + g[N-5] + g[N-4] + g[N-3] + g[N-2] + g[N-1] + g[N]
y[N] = g[N-6] + g[N-5] + g[N-4] + g[N-3] + g[N-2] + g[N-1] + g[N]
y[N+1] = g[N-5] + g[N-4] + g[N-3] + g[N-2] + g[N-1] + g[N]
y[N+2] = g[N-4] + g[N-3] + g[N-2] + g[N-1] + g[N]
y[N+3] = g[N-3] + g[N-2] + g[N-1] + g[N]
y[N+4] = g[N-2] + g[N-1] + g[N]
y[N+5] = g[N-1] + g[N]
y[N+6] = . . .
y[N+7] = 0

| | | Column | | | | | | | |
|-----|-------|--------|-------|-------|-------|-------|-------|-------|------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Row | | g[0] | g[1] | g[2] | g[3] | g[4] | g[5] | g[6] | g[7] |
| 1 | g[8] | g[9] | g[10] | g[11] | g[12] | g[13] | g[14] | g[15] | |
| 3 | g[18] | g[17] | g[18] | g[19] | g[20] | g[21] | g[22] | g[23] | |
| 6 | g[24] | g[25] | g[26] | g[27] | g[28] | g[29] | g[30] | g[31] | |
| 5 | g[32] | g[33] | g[34] | g[35] | g[36] | g[37] | g[38] | g[39] | |
| 6 | g[40] | g[41] | g[42] | g[43] | g[44] | g[45] | g[46] | g[47] | |
| 7 | g[48] | g[49] | g[50] | g[51] | g[52] | g[53] | g[54] | g[55] | |
| 8 | g[56] | g[57] | g[58] | g[59] | g[60] | g[61] | g[62] | g[63] | |

Figure 6A

APPN. FILING DATE: NOVEMBER 30, 2001
 TITLE: SINGLE CHANNEL CONVOLUTION IN A VECTOR PROCESSING COMPUTER SYSTEM
 INVENTOR(S): ALI SAZEGARI ET AL.
 APPLICATION SERIAL NO: UNASSIGNED
 SHEET 7 of 8

| | | Column | | | | | | | |
|-----|------|--------|-------|-------|-------|-------|-------|-------|-------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Row | | g[0] | g[9] | g[16] | g[24] | g[38] | g[40] | g[49] | g[56] |
| 1 | g[1] | g[9] | g[17] | g[25] | g[38] | g[41] | g[49] | g[57] | |
| 2 | g[2] | g[10] | g[18] | g[26] | g[34] | g[42] | g[50] | g[58] | |
| 3 | g[3] | g[11] | g[19] | g[27] | g[35] | g[43] | g[51] | g[58] | |
| 4 | g[4] | g[12] | g[20] | g[28] | g[36] | g[40] | g[52] | g[60] | |
| 5 | g[5] | g[13] | g[21] | g[29] | g[37] | g[45] | g[53] | g[61] | |
| 6 | g[6] | g[14] | g[22] | g[30] | g[38] | g[46] | g[54] | g[62] | |
| 7 | g[7] | g[15] | g[23] | g[31] | g[39] | g[47] | g[55] | g[63] | |

Figure 6B